



fragile papershell

Leptodea fragilis

Kingdom: Animalia
Division/Phylum: Mollusca
Class: Bivalvia

Features

The shell of the fragile papershell mussel is somewhat oblong, thin, and compressed. The anterior end is rounded and the posterior is rounded in males and broadly expanded in females. A dorsal "wing" is present in younger shells, but absent in older ones. Three or four faint bars extend from the umbo (hump near the hinge). The outside of the shell is smooth and yellow or yellowish green, usually with numerous light green, indistinct rays. The inside of the shell is pinkish white or pink and highly iridescent. The fragile papershell may reach lengths up to six inches.

Natural History

The fragile papershell is found in streams of all sizes in mud, sand, or gravel. It tolerates a wide variety of habitat conditions and alternations in its environment. Freshwater mussel distribution in Iowa is not well documented. They have an elaborate reproductive system. During spawning, males release sperm into the water. The sperm are drawn inside the female's shell, where they fertilize eggs in her body. The fertilized eggs develop into larvae (glochidia) and are

stored for a time in the female's gills. When the glochidia mature, the female generally expels them into the water where they must attach as parasites to the gills or fins of fish. Larvae remain on the host fish for a period of weeks or months. Young mussels then detach from their host and drop to the bottom of the body of water. The only known host for this mussel is the freshwater drum. Mussels are filter-feeders, bringing in water and the organic matter it contains through the incurrent siphon, filtering the particles out, then sending the rest of the water away from the body through the excurrent siphon. Particles filtered include plankton and detritus. Mature mussels spend most of their lives, which range from 10 to 100 years, partially or wholly buried in the bottom substrate.

Habitats

interior rivers and streams; Mississippi River; Missouri River; constructed, lakes, ponds, and reservoirs

Iowa Status

common; native

Iowa Range

northeastern two-thirds of Iowa

Bibliography

Iowa Department of Natural Resources. 2001.
Biodiversity of Iowa: Aquatic Habitats CD-ROM.